

Application No.: 10/766,138
Amdt dated: March 22, 2010
Reply to Office action of December 22, 2009

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-50 (Canceled).

51. (Currently amended) A method of manufacturing a kink-resistant thin-walled tube having a length with different characteristics, comprising:
coating a mandrel with a first layer of plastic material;
placing a spring reinforcement over the first layer; [[and]]
coating the spring reinforcement with a second layer of plastic material to form a spring-reinforced tube; and
modifying the mandrel's size after the spring-reinforced tube is formed.

52. (Original) The method of claim 51, wherein the first layer is formed in an extrusion process.

53. (Original) The method of claim 51, wherein the first layer is formed in a molding process.

54. (Original) The method of claim 51, wherein the second layer is formed in an extrusion process.

55. (Original) The method of claim 51, wherein the second layer is formed in a molding process.

56. (Original) The method of claim 51, wherein the spring reinforcement is a pre-wound wire comprising at least one of a metallic material and a second plastic material.

57. (Original) The method of claim 51, wherein the spring reinforcement is a wire comprising at least one of a metallic material and a second plastic material wound around the first layer.

58. (Original) The method of claim 51, further comprising dipping the tube in a solvent based solution forming an outer layer of the tube.

59. (Original) The method of claim 51, wherein the mandrel is tapered to provide the tube with varying diameter throughout the length of the tube.

60. (Original) The method of claim 51, wherein the mandrel may be any shape such that the resultant shape of the tube can be removed from the mandrel.

61. (Original) The method of claim 60, wherein the mandrel is a multiple-part mandrel.

62. (Currently amended) A method of manufacturing a kink-resistant thin-walled tube having a length with different characteristics, comprising:

coating a mandrel with a first layer of plastic material, the mandrel having a width;

placing a spring reinforcement over the first layer; [[and]]

dipping the spring-reinforced first layer in a solvent based solution to form a second layer of the tube; and

modifying the width of the mandrel, wherein the mandrel is a multiple-part mandrel.

63. (Original) The method of claim 62, wherein the second layer is impervious.

64. (Original) The method of claim 62, wherein the mandrel is tapered to provide the tube with varying diameter throughout the length of the tube.

65. (Original) The method of claim 62, wherein the mandrel may be any shape such that the resultant shape of the tube can be removed from the mandrel.

Claim 66 (Canceled).

67. (New) The method of claim 66 wherein the modifying of the width of the mandrel comprises modifying parts of the multiple-part mandrel to reduce an overall width of the mandrel.

68. (New) The method of claim 51 further comprising modifying parts of the multiple-part mandrel to reduce an overall width of the mandrel.

69. (New) The method of claim 62 wherein the modifying of the width of the mandrel comprises collapsing the mandrel.

70. (New) The method of claim 62 wherein the modifying of the width of the mandrel comprises dissolving the mandrel.

71. (New) The method of claim 62 wherein modifying of the width of the mandrel further comprises applying electrical energy to the mandrel.

72. (New) A method of manufacturing a kink-resistant thin-walled tube having a length with different characteristics, comprising:

winding a co-extruded wire into a substantially tubular form and defining a lumen through the substantially tubular formed wound wire;

inserting the substantially tubular formed wound wire into a tube constructed of plastic material;

inserting a mandrel through the lumen of the substantially tubular formed wound wire, the mandrel having a width smaller than a width of the lumen of the substantially tubular formed wound wire; and

increasing the width of the mandrel inserted through the lumen of the substantially tubular formed wound wire.

73. (New) The method of claim 72 further comprising coating the mandrel with a layer of plastic material.

74. (New) The method of claim 72 further comprising decreasing the width of the mandrel prior to withdrawal of the mandrel from the lumen of the substantially tubular formed wound wire.

75. (New) A method of manufacturing a kink-resistant thin-walled tube having a length with different characteristics, comprising:

coating a length-wise portion of a first mandrel with a layer of plastic material;

placing the coated length-wise portion of the first mandrel against an uncoated second mandrel; and

winding a spring reinforcement over the first and second mandrels;

wherein the spring reinforcement is a co-extruded wire and further comprising heating the co-extruded wire to form the tube.

76. (New) The method of claim 75 wherein the mandrel has a groove and placing a tube within the groove of the mandrel prior to coating the mandrel with the first layer of plastic material.

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77. (New) The method of claim 75 further comprising:
coating a length-wise portion of the second mandrel with a layer of plastic material; and
placing the coated length-wise portion of the second mandrel against an uncoated third mandrel.